

***Effect Duck Eggshell Nano Calcium Fortification and Different Packagings on Sensory Quality of Chicken Sausage***

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**ABSTRACT**

*This study aims to determine the effect of nano calcium fortification of duck egg shells and different packaging on the sensory quality of broiler chicken sausages. The research materials consisted of broiler chicken breast fillet, duck egg shell calcium nano powder, tapioca flour, cooking oil, garlic, shallots, onions, salt, pepper powder, monosodium glutamate, ice cubes, soy protein isolate, and sleeves. sausage collagen. The study was conducted with 6 treatments and 40 untrained panelists using sausage stored at 18°C for 4 weeks. 0% fortification treatment; 0.30% of the total dough and packaging treatment using polyethylene, nylon and retort pouch packaging. Parameters observed were color, aroma, taste, texture, elasticity, and acceptability. The hedonic scale used was 1 (dislike very much), 2 (disliked), 3 (somewhat like), 4 (liked), and 5 (liked very much). Sensory test data were analyzed by non-parametric analysis with the Hedonic Kruskal Wallis test and if there was a difference in the mean tested by Duncan's New Multiple Range Test. The results showed that the fortification of nano calcium duck egg shells and different types of packaging had a significant effect on color, taste, aroma, texture, elasticity and acceptability. Fortification with a level of 0.30% which is packaged using nylon packaging is the best treatment than other treatments. Nylon packaging is the best packaging in the parameters of color, texture and acceptability with a score of 3.75; 3.70 ; 3.93.*

**Key words:** *fortification, duck eggshell, packaging, sausage*